

WHAT IS CLAIMED IS:

1. An electronic component comprising:
 - a substrate:
 - at least one piezoelectric vibrating portion and a connecting portion provided on the substrate; and
 - a structural piece made of a resin material having a flat plate shape and covering at least the at least one piezoelectric vibrating portion; wherein
 - the structural piece has an integrated structure and is provided with a concavity including a top portion and side walls covering the at least one piezoelectric vibrating portion, the concavity defining a space so as not to disturb at least the vibration of the piezoelectric vibrating portion.
 2. An electronic component according to Claim 1, wherein the structural piece seals at least the at least one piezoelectric vibrating portion.
 3. An electronic component according to Claim 1, wherein the structural piece includes a mounting portion provided on the upper surface thereof, and is provided with a connecting wiring for electrically connecting the mounting portion and the connecting portion.
 4. An electronic component according to Claim 3, wherein the mounting portion does not overlap the connecting portion in a thickness direction of the structural piece.
 5. An electronic component according to Claim 1, wherein the concavity is formed by half-processing the structural piece made of a resin material using a laser beam.
 6. An electronic component according to Claim 1, wherein the concavity is formed by processing the structural piece made of a resin material by a photolithographic process.

7. An electronic component according to Claim 5, wherein the structural piece is made of a polyimide film or a liquid crystal polymer film.

8. An electronic component according to Claim 6, wherein the structural piece is made from a photosensitive material.

9. An electronic component according to Claim 1, wherein the substrate is made of a material selected from the group consisting of LiTaO₃, quartz, LiNbO₃ and Li₂B₄O₇.

10. An electronic component according to Claim 1, wherein the at least one piezoelectric vibrating portion includes electrodes made of a material selected from the group consisting of Al, Cu, an Al-Cu alloy and Au.

11. An electronic component according to Claim 1, wherein the structural piece includes at least one through hole.

12. A method of producing an electronic component including a substrate, at least one piezoelectric vibrating portion, a connecting portion formed on the substrate, and a structural piece made of a resin material having a flat plate shape and covering the piezoelectric vibrating portion, comprising the steps of:

forming a concavity and a through hole in the structural piece;

joining the structural piece to the substrate while the concavity of the structural piece is aligned with the piezoelectric vibrating portion, and the through hole is aligned with the connecting portion, such that the piezoelectric vibrating portion is sealed with the concavity of the structural piece;

forming a mounting portion on the upper surface of the structural piece;

and

forming a connecting wiring for electrically connecting the connecting portion to the mounting portion.

13. A method of producing the electronic component defined in Claim 12, wherein the concavity and the through hole are formed using a laser beam in the step of forming the concavity and the through hole.

14. A method of producing the electronic component defined in Claim 12, wherein the concavity and the through hole are formed by a photolithographic process in the step of forming the concavity and the through hole.

15. A method of producing an electronic component according to Claim 14, wherein a photo-mask used in the photolithographic process has a portion thereof corresponding to the concavity and a portion thereof corresponding to the through hole; the portion corresponding to the concavity including a pattern in which the photosensitive material achieves an exposure state where the material is not removed at development, and a pattern in which the photosensitive material achieves an exposure state where the material is resistant to a developing liquid at development, and the portion thereof corresponding to the through hole including a pattern in which the photosensitive material achieves an exposure state where the material is completely removed at development.

16. A method of producing an electronic component according to Claim 12, wherein the mounting portion does not overlap the connecting portion in the thickness direction of the structural piece.

17. A method of producing an electronic component according to Claim 12, wherein the structural piece is made of one of a polyimide film and a liquid crystal polymer film.